

Amendments to the Claims

1. (currently amended) A method of producing a template for oxygen precipitation in a semiconductor wafer in a housing which defines a process chamber having a source of heat, a susceptor, a wafer support and a Bernoulli wand, said method including:

heating a semiconductor wafer with opposite major surfaces in the process chamber housing to an elevated temperature of at least about 1175°C with a heat source, said wafer semiconductor being supported in immediate heat transfer relation with by the support in the process chamber housing during said heating;

ceasing said heating and moving said wafer semiconductor out of conductive heat transfer relation with the support with the Bernoulli wand; and

cooling said heated wafer in the process chamber in which the wafer was heated housing while holding said wafer out of conductive heat transfer relationship with the support at a rate of at least 10°C/sec until the wafer reaches a temperature of less than about 850°C thereby forming a template for oxygen precipitation in the wafer.

2. (currently amended) A method as set forth in claim 1 wherein the process additionally comprises the step of placing the wafer in the housing and applying an epitaxial coating to at least one said major surface thereof before said heating step with said wafer being in immediate heat transfer relation with the support during at least a portion of the coating application and without an intervening cooling step after said coating step and before said heating step.

3. (previously amended) A method as set forth in claim 2 wherein said wafer is heated to a temperature of at least about 1250°C after said coating is applied and the cooling rate of the wafer is at least about 20°C/sec.

4. (original) A method as set forth in claim 2 wherein said wafer is cooled at a rate of at least about 15°C/sec.

5. (original) A method as set forth in claim 2 wherein said wafer is cooled at a rate of at least about 20°C/sec.

6. (original) A method as set forth in claim 2 wherein said wafer is cooled at a rate of at least about 50°C/sec.

7. (original) A method as set forth in claim 4 wherein said cooling rate is at least about 15°C/sec until the temperature of the wafer is reduced at least about 325°C.

8. (original) A method as set forth in claim 5 wherein said cooling rate is at least about 20°C/sec until the temperature of the wafer is reduced at least about 325°C.

9. (original) A method as set forth in claim 6 wherein said cooling rate is at least about 50°C/sec until the temperature of the wafer is reduced at least about 325°C.

10. (original) A method as set forth in claim 4 wherein said cooling rate is at least about 15°C/sec until the temperature of the wafer is reduced at least about 400°C.

11. (original) A method as set forth in claim 5 wherein said cooling rate is at least about 20°C/sec until the temperature of the wafer is reduced at least about 400°C.

12. (original) A method as set forth in claim 6 wherein said cooling rate is at least about 50°C/sec until the temperature of the wafer is reduced at least about 400°C.

13. (original) A method as set forth in claim 4 wherein said cooling rate is at least about 15°C/sec until the temperature of the wafer is reduced at least about 450°C.

14. (original) A method as set forth in claim 5 wherein said cooling rate is at least about 20°C/sec until the temperature of the wafer is reduced at least about 450°C.

15. (original) A method as set forth in claim 6 wherein said cooling rate is at least about 50°C/sec until the temperature of the wafer is reduced at least about 450°C.

16. (original) A method as set forth in claim 1 wherein said heat source is light.

17. (original) A method as set forth in claim 16 wherein said heat source is a halogen lamp.

18-20. (cancelled).